Estimates of the maximum air quality impacts to the public from activities in the 200 Areas under Alternative D are summarized in Table 5.9. Estimates of the maximum air quality impacts from Area C activities are the same for all Alternative Groups (see Table 5.6).

Table 5.9. Alternative D: Maximum Air Quality Impacts to the Public from Activities in the 200 Areas

			Hanford & Lower Bound Volume		Upper Bound Volume	
Pollutant	**Averaging Time**	**Ambient Air Quality Standard ($\mu g/m^3$)**	**Maximum Air Quality Impacts ($\mu g/m^3$)**	**Percent of Standard**	**Maximum Air Quality Impacts ($\mu g/m^3$)**	**Percent of Standard**
PM_{10}	24 hr	150	61	41	62	41
	Annual	50	0.53	1.1	0.54	1.1
SO_2	1 hr	1,000	84	8.4	84	8.4
	3 hr	1,300	38	2.9	38	2.9
	24 hr	260	3.1	1.2	3.1	1.2
	Annual	50	0.019	0.038	0.019	0.038
CO	1 hr	40,000	1590	4.0	1590	4.0
	8 hr	10,000	500	5.0	500	5.0
NO_2	Annual	100	0.91	0.91	0.98	0.98

All air quality impacts from Alternative D would be within ambient air quality standards. The largest potential impacts to the public from Area C activities would result from SO_2 and CO emissions. The largest potential air quality impacts to the public from activities in the 200 Areas would involve the 24-hour PM_{10} air concentration. Using the series of conservative assumptions employed in the dispersion modeling, this maximum air quality impact would be about 41 percent of the applicable air quality standard.

5.2.5 Alternative Groups E_1, E_2, and E_3

Project activities that would generate air quality impacts under Alternative Groups E_1, E_2, and E_3 (collectively referred to as Alternative E) include the use of diesel-fueled equipment to construct a lined modular facility for LLW and MLLW, construction of the ILAW and melter trenches, backfilling and capping activities in the LLBGs, modification of T Plant, and the excavation of materials at the borrow pit. In addition, propane engines would be used at the CWC and to operate pulse driers used to treat leachate from the MLLW trenches. Fugitive dust would be associated with all major construction and operation activities. Alternative Groups E_1, E_2, and E_3 postulate different locations for the lined modular facility. In conducting air quality modeling, a conservative 200 West Area source location was assumed in all cases for the lined modular facility. As a result, the air quality estimates for E_1, E_2, and E_3 are equivalent.

For Alternative Group E (Hanford Only, Lower Bound, and Upper Bound waste volumes), the largest air quality impacts would occur during three different periods of project operation. In 2006, the heavy use of construction equipment for concurrent construction of LLW, MLLW, and ILAW trenches and the

capping of an existing MLLW trench would produce the maximum 24-hour and annual concentrations of SO_2. In 2007, trench-construction activities would be underway, which would produce the maximum 1- and 8-hour concentrations of CO and the maximum 1- and 3-hour concentrations of SO_2. After disposal operations cease, LLBG and ILAW capping operations would be in full swing. This sustained activity would produce the maximum 24-hour and annual concentrations of PM_{10} and annual concentrations of NO_2.

Estimates of the maximum air quality impacts to the public from activities in the 200 Areas under Alternative E are summarized in Table 5.10. Estimates of the maximum air quality impacts to the public from Area C activities are the same for all Alternative Groups (see Table 5.6).

Table 5.10. Alternative E: Maximum Air Quality Impacts to the Public from Activities in the 200 Areas

			Hanford & Lower Bound Volume		Upper Bound Volume	
Pollutant	**Averaging Time**	**Ambient Air Quality Standard ($\mu g/m^3$)**	**Maximum Air Quality Impacts ($\mu g/m^3$)**	**Percent of Standard**	**Maximum Air Quality Impacts ($\mu g/m^3$)**	**Percent of Standard**
PM_{10}	24 hr	150	60	40	62	41
	Annual	50	0.53	1.1	0.54	1.1
SO_2	1 hr	1,000	93	9.3	95	9.5
	3 hr	1,300	42	3.2	42	3.2
	24 hr	260	3.1	1.2	3.2	1.2
	Annual	50	0.019	0.038	0.020	0.040
CO	1 hr	40,000	1700	4.3	1700	~~4.4~~4.3
	8 hr	10,000	530	5.3	530	5.3
NO_2	Annual	100	0.84	0.84	0.97	0.97

All air quality impacts from Alternative E would be within ambient air quality standards (see Table 4.5). The largest potential impacts to the public from activities at Area C would result from SO_2 and CO emissions. The largest potential air quality impact to the public from activities in the 200 Areas would involve the 24-hour PM_{10} air concentration. Using the series of conservative assumptions employed in the dispersion modeling, this maximum air quality impact would be about 41 percent of the applicable air quality standard.

5.2.6 No Action Alternative

Project activities that would generate air quality impacts under the No Action Alternative include the use of diesel-fueled equipment during construction of additional trenches of current design, construction of the ILAW trench and 66 CWC buildings, backfilling the LLW and MLLW trenches, capping two existing MLLW trenches, and excavation of materials at the borrow pits. A propane-fueled pulse drier would be used to treat MLLW trench leachate, beginning in 2026. Fugitive dust would be associated with all major construction and operation activities.